weight. Applicants contend that the amendment is supported by the specification. No new matter is included in the amendment.

Moreover, the amendment raises no issues not already present in the case, and places the claims in better condition for appeal. Applicants point out that pending claim 11 has recited 70-80% VLDPE, based on total blend weight, and 20-30% LLDPE, based on total blend weight. Therefore, the unexpected results arguments set forth in Amendment under 37 CFR 1.111, filed 15 October 2001, already applied with at least equal force to Claim 11 as amended Claim 4. The above amendment only broadens the number of claims to which this pre-existing issue applies.

II. The Various §103 Rejections of the Claims

Applicants provide the following comments in response to Paragraphs 6, 7, 8, and 9 in the final Office Action.

As to all rejections utilizing OYA et al, Applicants again point out that OYA et al is directed to a *seal* layer, containing a blend of VLDPE and LLDPE. Those of skill in the art know that a seal layer is a layer to be used in a heat seal of the film to itself or another film. As amended in the amendment filed 15 October 2001, Applicants' claims do not read on a patch bag in which a heat seal is used for the purpose of adhering the patch to the bag. Rather, Applicants claims require that the means for adhering the patch to the bag is an adhesive or corona treatment. In fact, Applicants are not aware of any patch bags in which a heat seal is used for the purpose of adhering the patch to the bag. The only patch bags in which a heat seal adheres the patch to the bag is a patch bag in which the bag film is heat sealed to itself, with the heat seal being made at a location at which the patch covers the bag. Such a seal may incidentally bond the patch to the bag, but such patches are adhered to the bag

film throughout their contact with the bag using an adhesive or corona treatment as recited in Applicants' claims, rather than via heat seal. One of skill in the art would not modify a patch layer based on a teaching to modify a seal layer, when the patch has no seal layer, as is the case with all patch bags. Thus, the heat sealability of the VLDPE/LLDPE film layer disclosed OYA et al would not have motivated one of skill in the art to use the VLDPE/LLDPE blend in a *patch* film.

As to the remarks concerning improving stretchability of the film of OYA et al, Applicants direct attention to the fact that FERGUSON '403 discloses a completely satisfactory process for making a heat-shrinkable patch film. In fact, the disclosure of the process for making the heat-shrinkable LLDPE/EVA patch film of FERGUSON '403 resulted in two US patents from divisional applications directed to the process for making the heat-shrinkable patch film: i.e., USPN 4,765,857 and USPN 4,770,731. These patents show that one of skill in the art would have been motivated to make the oriented patch film as described in FERGUSON '857 and '731 patents. That is, there would have been no motivation to "improve" the already adequate "stretchability" (i.e., orientability) of the patch film to "improve" the shrink thereof. FERGUSON '403 states that to prevent the patch from delaminating from the bag, the patch should shrink in the same manner as the bag. See Col. 2 lines 61-63 of FERGUSON '403. Moreover, those of skill in the art know that FERGUSON '403 discloses a patch which is biaxially heat shrinkable, and which does not delaminate from the bag. There is no motivation in FERGUSON '403 to alter the shrink properties of the patch film as disclosed therein. As a result, one of skill in the art would not look to OYA et al for the purpose of improving the stretchability of the patch film of FERGUSON '403.

In addition to disclosing suitable stretching processes, FERGUSON '403 states that LLDPE is surprisingly strong and tough. As a result, one of skill in the art, reading FERGUSON '403 in view

of OYA et al, would think that replacing LLDPE with a blend of LLDPE and VLDPE would decrease the strength and toughness of the resulting patch, because there would be less of the surprisingly strong and tough LLDPE. This is an additional reason Applicants' claims are patentable over FERGUSON '403 in view of OYA et al.

As to the rejection based on FERGUSON '403 in view of FERGUSON '856 and OYA et al, Applicants note that FERGUSON '856 teaches the substitution of VLDPE for EVA, not the substitution of VLDPE for LLDPE. As such, even if the combination suggested in the Office Action is made, the result is a patch film having an LLDPE/VLDPE blend which contains a maximum VLDPE content of only 20 percent. See FERGUSON '403 at Column 1 line 62 through Column 2 line 10. Applicants' claims, as amended 15 October 2001, require at least 21% VLDPE, i.e., an amount not taught or suggested by the combination of FERGUSON '856 and OYA et al.

As to the rejection based on FERGUSON in view of WILHOIT and OYA et al, Applicant acknowledges that WILHOIT states that VLDPE improves the shrink, tensile strength, and puncture resistance of a film, relative to LLDPE. See Column 4 lines 10-15 of WILHOIT. However, given this guidance, one of skill in the art would replace *all* of the LLDPE with VLDPE, rather than using a blend of LLDPE and VLDPE. Applicants have demonstrated, in various examples of the specification as filed, that a 75% VLDPE/20.5%LLDPE blend outperforms both 95.5% VLDPE in the patch film, and 95.5% LLDPE in the patch film. Table VIII on Page 40 of the specification discloses the film of Example 4 (75% VLDPE blended with 20.5% LLDPE) as exhibiting only 25% leakers in the Standard Rib Drop Test, as compared to 33.3% leakers for Example 5 and 37.5% leakers for Example 6, which contained 95.5% VLDPE and 95.5% LLDPE respectively.

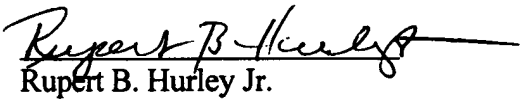
Moreover, Applicants have demonstrated that a 50%VLDPE/47%LLDPE blend in the patch film, as well as a 75%VLDPE/23%LLDPE blend in the patch film, outperform 97%LLDPE in the patch film, and outperform 97% VLDPE in the patch film. See the Table X on Page 46 of Applicants' specification, which discloses the films of the invention (i.e., Films 9 and 10) as having Indexed Energy to Break of 1.69 and 1.67 J/mil, which is significantly superior the indexed Energy to Break values of only 1.46 and 1.56 J/mil of Comparative Films 8 and 11.

Applicants note that the showing of unexpected results correlates with the 70-80% VLDPE recitation of Claim 11, as well as the 50-80% VLDPE range of amended Claim 4. With respect to these claims, the showing of unexpected results is commensurate with the scope of the claims, and the comparative example at 97% VLDPE is in accordance with the teaching of WILHOIT to make a wholesale replacement of LLDPE with VLDPE.

Clearly, Applicants' specification provides data in support of a synergy which is unexpected over WILHOIT as well as FERGUSON '403. Neither VLDPE alone, nor LLDPE alone, produces the results Applicants have obtained for the VLDPE/LLDPE blends recited in Claims 4 and 11. Applicants' examples, as discussed above, provide evidence that a wholesale replacement of VLDPE for LLDPE produces results unexpectedly inferior to Applicants' invention as claimed. There is no teaching or suggestion in any one or more of the applied reference documents that Applicants' recited blend of 50-80% VLDPE/50-20%LLDPE (i.e., Claim 4, as amended above) or Applicants' recited blend of 70-80%VLDPE/30-20%LLDPE (i.e., Claim 11) produce the results Applicants have disclosed in various examples in their application.

Accordingly, Applicants respectfully request reconsideration of the patentability of the claims, in view of the amendment and remarks set forth above.

Respectfully Submitted,



Rupert B. Hurley Jr.
Reg. No. 29,313
Attorney for Applicants
(803) 433-3247

26 April 2002

APPENDIX

The amendments to the claims are set forth below.

4. (Twice Amended) The patch bag according to Claim 3, wherein both the first and second heat-shrinkable films each have a total free shrink, at 185°F, of at least 35 percent, and the ethylene/alpha-olefin copolymer having a density greater than about 0.915 g/cm^3 comprises linear low density polyethylene in an amount of from about [10] 20 to 50 percent, based on total blend weight, and the heterogeneous ethylene/alpha-olefin copolymer having a density of less than about 0.915 g/cm^3 comprises very low density polyethylene in an amount of from about 50 to 80 [90] weight percent, based on total blend weight, with the blend optionally comprising a homogeneous ethylene/alpha-olefin copolymer having a density of from about 0.88 to 0.915 g/cm^3 in an amount of from about 0 to 30 percent, based on total blend weight, with the blend being present in an amount of at least 70 weight percent, based on layer weight, in a layer having a thickness of at least about 0.6 mil.